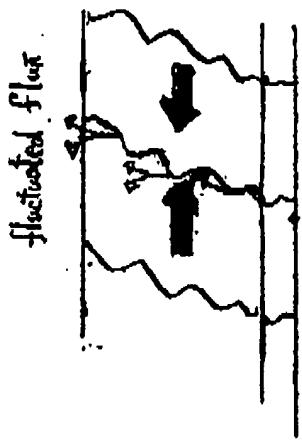
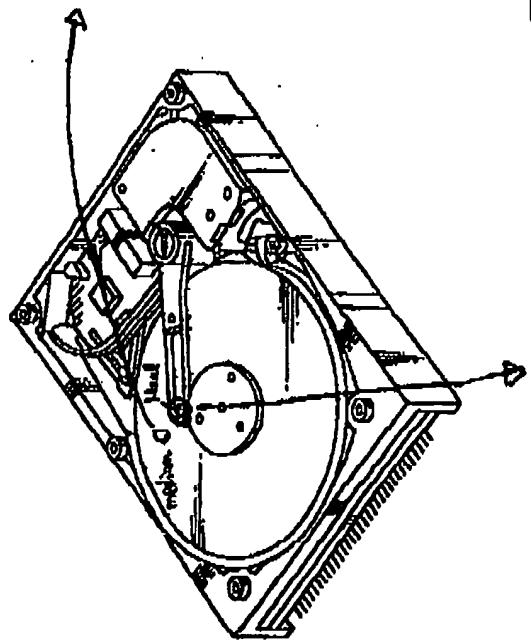
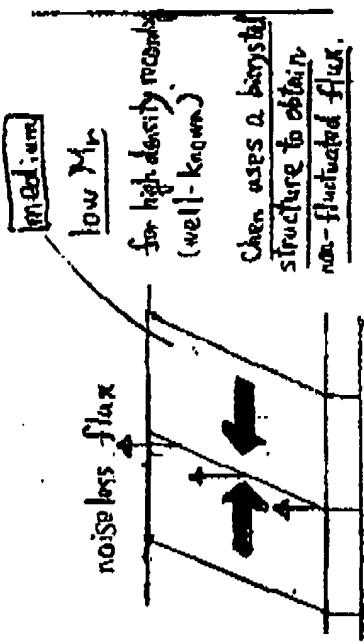


# APPENDIX A

"Medium Noise exists"

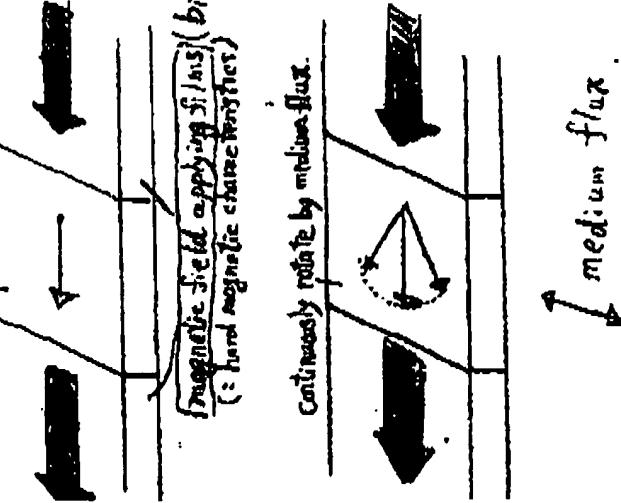


"Medium Noise free"

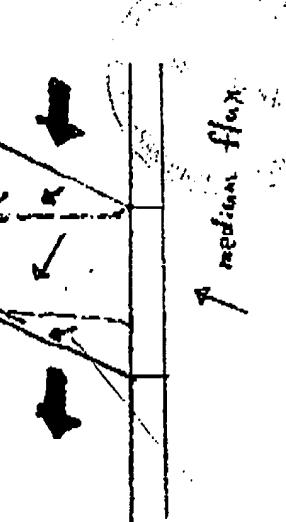


"Barkhausen Noise free"

free layer  
(soft magnetic characteristics)



continuously relate by medium flux.



We found "the bengal structure" can  
realize high  $H_{cr}$  biasing flux  
maintaining high  $H_{cr}$  and high resonance  
squareness.